

IN THE CLAIMS

Please amend the claims as follows. This claim set is to replace all prior versions.

1. (Currently Amended) A process for preparing an angiotensin converting enzyme (ACE) inhibitory peptide-containing hydrolysate comprising:
a) contacting a substantially oil-free seed meal or a flour with an organic solvent,
b) separating the meal or flour of step (a) from the solvent, and
c) treating the separated meal or flour of step (b) with at least one proteolytic enzyme to produce an ACE inhibitory peptide-containing hydrolysate.
2. (Original) The process of claim 1 further comprising separating the treated seed meal or flour from the hydrolysate.
3. (Previously Presented) The process of claim 1 wherein the solvent is at least one solvent selected from the group consisting of methanol, ethanol, propanol, butanol, acetone and ethyl acetate.
4. (Previously Presented) The process of claim 1 wherein the solvent is ethanol.
5. (Previously Presented) The process of claim 1 wherein the solvent is an aqueous organic solvent.
6. (Original) The process of claim 5 wherein the solvent is 70:30 v/v ethanol:water.
7. (Previously Presented) The process of claim 1 wherein the seed meal or flour is contacted with the solvent at a temperature from about 20°C to the boiling point of the solvent for a period of time from about one hour to about 24 hours.

8. (Previously Presented) The process of claim 1 wherein the ACE inhibitory peptide-containing hydrolysate is ultrafiltered.

9. (Currently Amended) The process of claim 8 wherein the hydrolysate is ultrafiltered using an ultrafiltration membrane of pore size from about 1000 to about 100,000 molecular weight cut-off (MWCO)MWCO.

10. (Previously Presented) The process of claim 1 wherein the hydrolysate is dried to form a powder.

11. (Previously Presented) The process of claim 1 wherein the seed meal or flour is from a plant selected from the group consisting of flax, canola, soybean, cottonseed, sunflower, peanut, mustard, pea, lentil, bean, chickpea, wheat, oats, barley, rye and buckwheat.

12. (Previously Presented) The process of claim 1 wherein the at least one proteolytic enzyme is present at a concentration from about 0.25% to about 8.0% w/w.

13. (Previously Presented) The process of claim 1 wherein the at least one proteolytic enzyme is present at a concentration from about 0.5% to about 4.0% w/w.

14. (Previously Presented) The process of claim 1 wherein the at least one proteolytic enzyme is selected from the group consisting of a protease, a peptidase, a serine endopeptidase and a metalloendopeptidase.

15. (Previously Presented) The process of claim 1 wherein the at least one proteolytic enzyme is selected from the group consisting of Alcalase 2.4L, Alkaline Protease L-FG, Neutral Protease NBP-L, Umamizyme, Protease P Amano 6, Peptidase R, Protease M "Amano", Proleather FG-F and Thermolysin.

16. (Previously Presented) The process of claim 1 wherein the at least one proteolytic enzyme is an alkaline protease and the reaction mixture is adjusted to an alkaline pH by addition of a base selected from the group consisting of NaOH, KOH and NH₄OH.

17. (Original) The process of claim 16 wherein the added base is KOH.

18. (Previously Presented) The process of claim 1 wherein the at least one proteolytic enzyme is an acid protease and the reaction mixture is adjusted to an acidic pH.

19. (Previously Presented) The process of claim 1 wherein the degree of proteolysis is controlled by varying the incubation time.

20. (Currently Amended) The process of claim 1 wherein the seed meal is canola meal and the hydrolysate contains the peptide ~~at least one of peptides~~ Val-Ser-Val and Phe-Leu.

21. (Previously Presented) The process of claim 1 wherein the seed meal is flax meal or soybean meal and the proteolytic enzyme is a metalloendopeptidase.

22. (Original) A process for preparing an ACE inhibitory peptide-containing hydrolysate from flax or canola comprising

treating a substantially oil-free flax seed meal or a substantially oil-free canola seed meal with at least one proteolytic enzyme to produce an ACE inhibitory peptide-containing hydrolysate.

23. (Original) The process of claim 22 further comprising separating the treated seed meal from the hydrolysate.

24. (Currently Amended) The process of claim 22 wherein the ACE inhibitory peptide-containing hydrolysate is ultrafiltered using an ultrafiltration membrane of pore size from about 1000 to about 100,000 molecular weight cut-off (MWCO) MWCO.

25. (Original) The process of claim 24 wherein the hydrolysate is dried to form a powder.

26. (Previously Presented) The process of claim 22 wherein the at least one proteolytic enzyme is present at a concentration of from about 0.25% to about 8.0% w/w.

27. (Previously Presented) The process of claim 22 wherein the at least one proteolytic enzyme is selected from the group consisting of a protease, a peptidase, a serine endopeptidase and a metalloendopeptidase.

28. (Previously Presented) The process of claim 22 wherein the at least one proteolytic enzyme is selected from the group consisting of Alcolase 2.4L, Alkaline Protease L-FG, Neutral Protease NBP-L, Umamizyme, Protease P Amano 6, Peptidase R, Protease M "Amano", Proleather FG-F and Thermolysin.

29. (Previously Presented) The process of claim 22 wherein the at least one proteolytic enzyme is an alkaline protease and the reaction mixture is adjusted to an alkaline pH by addition of a base selected from the group consisting of NaOH, KOH and NH₄OH.

30. (Original) The process of claim 29 wherein the added base is KOH.

31. (Withdrawn) An ACE inhibitory peptide-containing hydrolysate prepared by the process of claim 1.

32. (Withdrawn) An ACE inhibitory peptide-containing hydrolysate produced by partial proteolytic digestion of a flax meal or a canola meal.

33. (Withdrawn) The hydrolysate of claim 32 prepared by a process comprising
treating a substantially oil-free flax seed meal or a substantially oil-free canola seed meal with at least one proteolytic enzyme to produce an ACE inhibitory peptide-containing hydrolysate.

34. (Withdrawn) The hydrolysate of claim 31 wherein the hydrolysate has an ACE inhibitory IC₅₀ of less than 200 μ g powder/ml.

35. (Withdrawn) A powder produced by drying the hydrolysate of claim 31.

36. (Withdrawn) An edible product comprising the hydrolysate of claim 31.

37. (Withdrawn) The product of claim 36 wherein the product is a food or a beverage.

38. (Withdrawn) The product of claim 36 wherein the product is a food supplement.

39. (Withdrawn) The hydrolysate of claim 31 comprising at least one of the peptides Val-Ser-Val and Phe-Leu.

40. (Withdrawn) A composition comprising at least one of peptides Val-Ser-Val and Phe-Leu and a carrier.

41. (Withdrawn) A peptide of the formula Val-Ser-Val or Phe-Leu.

42. (Cancelled)

43. (Withdrawn) A method of inhibiting ACE activity in a mammal comprising administering to the mammal an effective amount of a hydrolysate prepared by the method of claim 1.

44. (Withdrawn) The method of claim 43 wherein the inhibition of ACE activity produces a lowering of elevated blood pressure in the mammal.

45. (Cancelled)